Appl. No. 10/552,134

Amdt. Dated: January 26, 2010

Reply to Office Action of August 27, 2009

Amendments to the Claims.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- (Currently amended) <u>A</u> mMethod of producing a radiolabelled gallium complex by reacting a Ga³⁺ radioisotope with a <u>macrocyclic bifunctional</u> chelating agent characterised in that the reaction is carried out using microwave activation <u>at 80 to 120 W</u> for 20 s to 2 min and wherein the.
- (Currently amended) The mMethod according to claim 1 wherein the Ga³⁺ radioisotope is selected from the group consisting of ⁶⁶Ga³⁺, ⁶⁷Ga³⁺ and ⁶⁸Ga³⁺.
- 3. (Currently amended) The mMethod according to claim 1 wherein the Ga^{3+} radioisotope is $^{68}Ga^{3+}$.
- 4. (Cancelled)
- (Currently amended) <u>The m</u>Method according to claim 1 wherein the chelating agent comprises hard donor atoms, preferably O and N atoms.
- 6. (Cancelled)
- 7. (Currently amended) The mMethod according to claim 1 wherein the ehelating agent is a bifunctional chelating agent comprises eomprising a targeting vector selected from the consisting of proteins, glycoproteins, lipoproteins, group polypeptides, lipopeptides. glycopolypeptides, lipopolypeptides, peptides. glycopeptides, carbohydrates, nucleic acids, oligonucleotides or a part, a fragment, a derivative or a complex of the aforesaid compounds and small organic molecules.

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(Currently amended) <u>The mMethod according to claim 7</u> wherein the target vector is a
peptide or oligonucleotide.

 (Currently amended) <u>The mMethod according to claim 1</u> wherein the microwave activation is carried out at 80 to 120 W, preferably at 90 to 110 W.

10. (Currently amended) The mMethod according to claim 1 wherein the microwave activation is carried out for 20 s to 2 min, preferably for 30 s to 90 s.

11. (Currently amended) The mMethod according to claim 3 wherein the ⁶⁸Ga³⁺ is obtained by contacting the eluate from a ⁶⁸Gef⁶⁸Ga generator with an anion exchanger and eluting ⁶⁸Ga³⁺ from said anion exchanger.

(Currently amended) <u>The mMethod according to claim 11</u> wherein the ⁶⁸Ge/⁶⁸Ga generator comprises a column comprising titanium dioxide.

 (Currently amended) <u>The mMethod according to claim 11</u> wherein the anion exchanger comprises HCO₃⁻ as counterions.

14. (Currently amended) <u>The mMethod according to claim 11</u> wherein the anion exchanger is an anion exchanger comprising quaternary amine functional groups, or the ion exchanger is a anion exchange resin based on polystyrene-divinylbenzene.

 (Currently amended) <u>The m</u>Method according to claim <u>16</u> for the production of ⁶⁸Garadiolabelled PET tracers.

16. (Withdrawn) Method according to claim 11 wherein the eluting ⁶⁸Ga³⁺ is in the picomolar to nanomolar range after the elution, and more preferably in a nanomolar to micromolar level